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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/799,529

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EXAMINER

VOGEL, NANCY S

ART UNIT

PAPER NUMBER

1636

MAIL DATE

DELIVERY MODE

11/01/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/799,529	<b>Applicant(s)</b> PODELLA ET AL.	
	<b>Examiner</b> Nancy T. Vogel	<b>Art Unit</b> 1636	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 August 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21, 29-33, 40-52 and 59-62 is/are pending in the application.
- 4a) Of the above claim(s) 48-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6-8, 10-18, 29-33, 59 and 60 is/are rejected.
- 7) ☒ Claim(s) 3-5, 9, 19-21, 40-47, 52, 61, 62 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### **DETAILED ACTION**

Claims 1-21, 29-33, 40-52, 59-62 are pending in the case.

This application contains claims 48-51 drawn to an invention nonelected with traverse in the reply filed on 2/8/07. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 16-18, 29-33, 59, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not provide support for the invention as now claimed: "a post-fermentation mixture" This a new matter rejection. The specification does not provide sufficient blazemarks nor direction for the instant methods encompassing the above-mentioned limitations, as currently recited. The instant claims now recite limitations which were not clearly disclosed in the specification as-filed, and now change the scope of the instant disclosure as-filed. Such limitations recited in the present claims, which did not appear

in the specification, as filed, introduce new concepts and violate the description requirement of the first paragraph of 35 U.S.C. 112. Although applicants point to sections of the specification for support, those sections do not define the term "post-fermentation mixture".

Claims 16-18, 29-33, 59 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The rejection is based on the Guidelines for the Examination of Patent Applications under the 35 U.S.C. 112, first paragraph "Written Description published in the Federal Register (Volume 66, Number 4, Pages 1099-1111). Claim 29 is drawn to a method for accelerating nutrient uptake in bacteria or yeast without a substantially commensurate increase of biomass comprising contacting said bacteria or yeast with a mixture comprising a "post-fermentation mixture" and a surface-active agent. The specification has not provided a definition of the term "post-fermentation mixture"; the phrase has therefore been given the broadest reasonable interpretation as being any compound or molecule produced by fermentation or growth of any type of cell. Claims 29-33, 59 and 16-18 are genus claims in terms of a method utilizing virtually any compound produced by a cell in culture, defined only by the effect of causing nutrient uptake in bacteria or yeast to be increased without a substantially commensurate

Art Unit: 1636

increase of biomass, in conjunction with a surface-active agent. The disclosure is not deemed to be descriptive of the complete structure of a representative number of species encompassed by the claims as one of skill in the art cannot envision all the methods utilizing the encompassed molecules based on the teachings of the specification. While the specification has described mixtures made from plurality of yeast cell components, there is not disclosure of a particular molecule, identified by its structure, which is responsible for the activity of causing nutrient uptake increase without a substantially commensurate increase of biomass. Therefore, one could not predict which molecules, other than those obtained by fermentation and processing of yeast cells as disclosed in other claims and in the specification, would have the claimed activity. There is no structure-function analysis of any molecule having the recited activity. Therefore, the specification does not describe the claimed method utilizing "post-fermentation mixture" in such full, clear, concise and exact terms so as to indicate that Applicant has possession of the method at the time of filing the present application. Thus, the written description requirement has not been satisfied.

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 6- 8, 10-17, 29-33, 59, 60 are rejected under 35 U.S.C. 102(b) as being anticipated by Battistoni et al. (US Pat. 3,635,797) (previously cited).

This rejection is maintained essentially for the reasons made of record, with slight alterations, and applied to different claims, as necessitated by applicant's amendments to the claims.

Battistoni et al. disclose a method comprising contacting yeast and/or bacteria with a mixture of post-fermentation mixture produced by disrupting yeast cells and a surface-active agent such as anionic and non-anionic detergents(see col. 1-2, col. 4 lines 7-20). It is considered that the fermentation mixture disclosed by Battistoni et al. would have some disrupted cells that have been disrupted by physical (during handling) means or by the chemicals, which are added to the fermentation mix. The reference discloses a method of treating biological systems that removing accumulated waste or digesting and removing organic materials using said mixture (col. 1). It is considered that nutrient uptake without substantial commensurate increase of biomass would occur since the same components or products (i.e. disrupted yeast cells) are present in the reference, as are disclosed in the instant application.

Applicant 's arguments filed 8/22/07 have been considered but have not been found convincing.

Applicants have argued that the reference does not teach all of the elements of the claims. Applicants state that the reference does not teach contacting bacteria or yeast with the post-fermentation substance to affect the claimed invention. Applicants argue that the reference does not teach inherently or explicitly the stimulation of nutrient uptake without commensurate increase in biomass accumulation and biofilm production. However, applicant has not given any support for their statement that the reference

would not inherently result in the claimed result. Furthermore, it is maintained that Battistoni et al. does teach contacting yeast or bacteria, which would be present in the conditions disclosed therein, with the "post-fermentation" product, as reasonably interpreted, for the reasons set forth above. Therefore, the rejection is maintained.

Claims 3-5, 9, 18-21, 40-47, 52, 61, 62 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1636

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nancy T. Vogel whose telephone number is (571) 272-0780. The examiner can normally be reached on 7:00 - 3:30, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Woitach can be reached on (571) 272-0739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
NANCY VOGEL  
PRIMARY EXAMINER

NV  
10/29/07